UNITED STATES PATENT AND TRADEMARK OFFICE

# CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484 B2
APPLICATION NO. : 10/080926
DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.



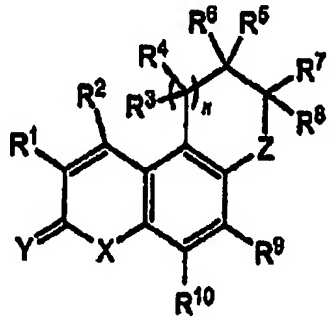
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**IN THE TITLE PAGES:**

Item [56] References Cited, in OTHER PUBLICATIONS:
in Yudin, please replace "Geterotsikicheskikh" with --Geterotsiklicheskikh--
in the first Yamashkin et al., please replace "Chemistry.of" with --Chemistry of--
in Edwards, J., et al., please replace "(1999)" with --(1998)--
in Boyer, M., please replace "http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm(accessed on Jan. 28, 2005." with --http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm (accessed on Jan. 28, 2005).--
in Castillo, P., please replace "o-dihdroxyaromatic" with --o-dihydroxyaromatic--

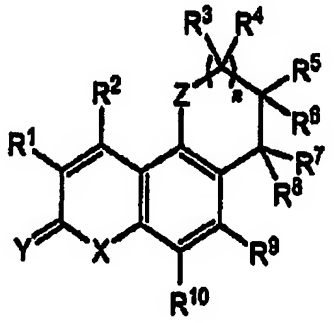
**IN THE SPECIFICATION:**

In column 2, beginning at line 7, please replace formulas I-VIII with:



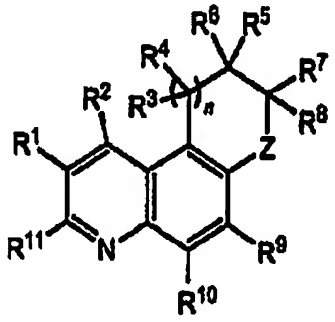

(I)

OR



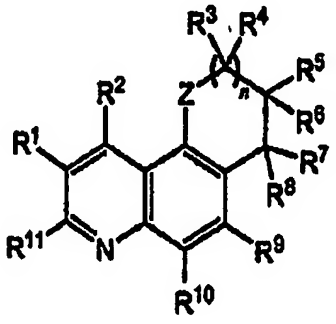

(II)

OR




(III)

OR




(IV)

OR

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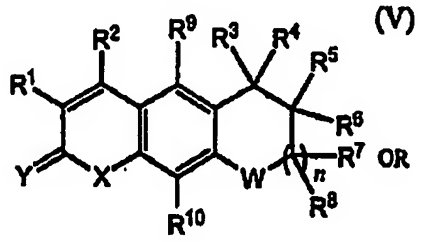
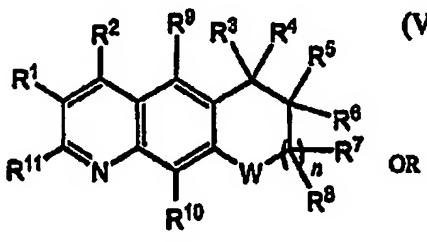
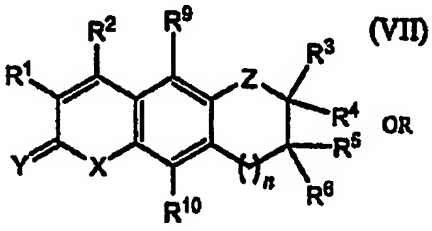


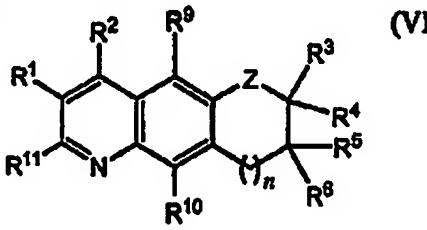

OR



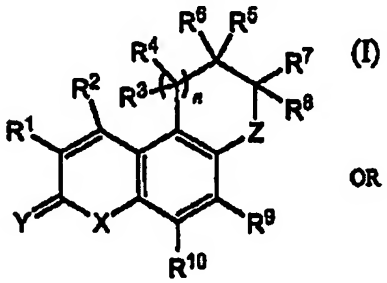

OR



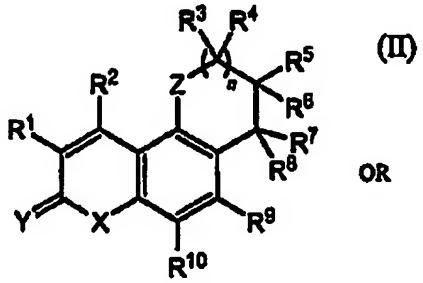

OR



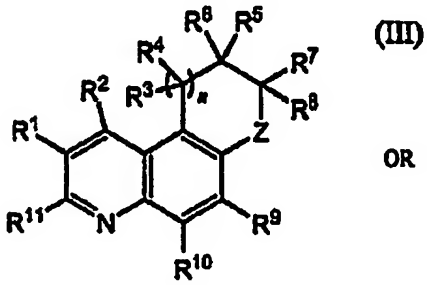

in column 7, beginning at line 15, please replace formulas I-VIII with:



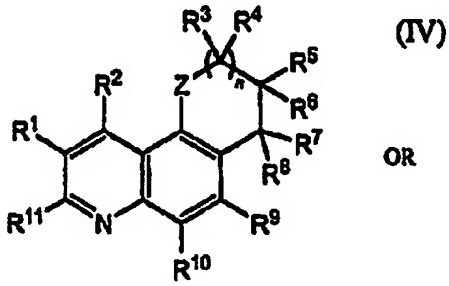

OR




OR




OR




OR

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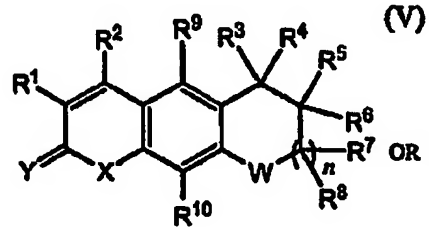
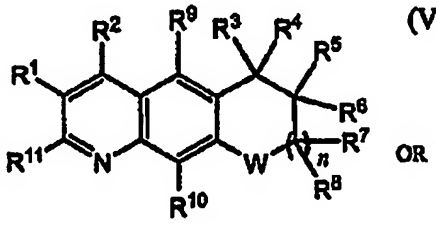


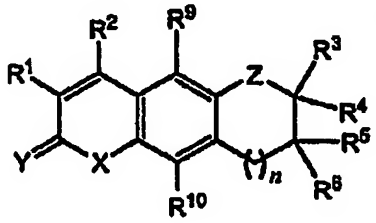
(V)

OR



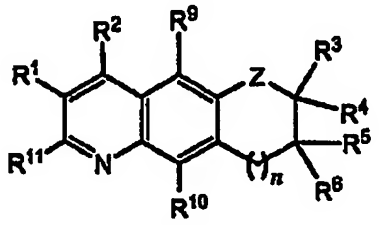
(VI)

OR



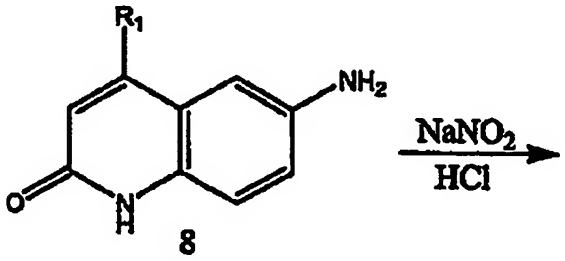
(VII)

OR

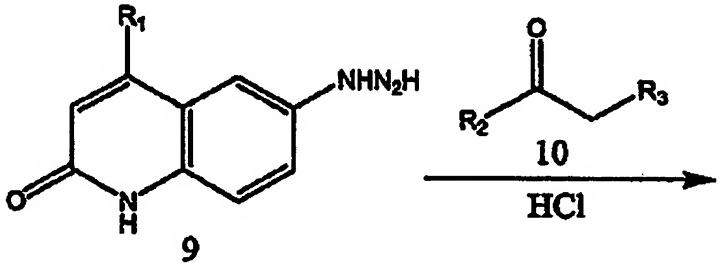


(VIII)

in column 24, lines 53-67, please replace the structures in Scheme II with:



8



9

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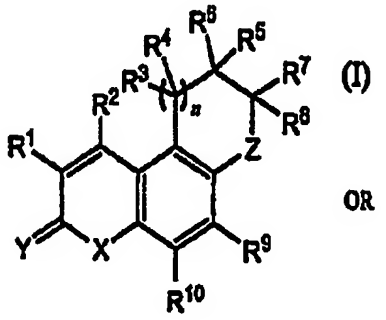
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

in column 57, lines 4-6, please replace
"(Compound 177, Structure 26 of Scheme IV, where $R_2$=methyl. $R_3$=2-hydroxyethyl" with --(Compound 177, Structure 26 of Scheme IV, where $R_2$=methyl, $R_3$=2-hydroxyethyl--

in column 70, line 21, please replace "chloronation" with --chlorination--

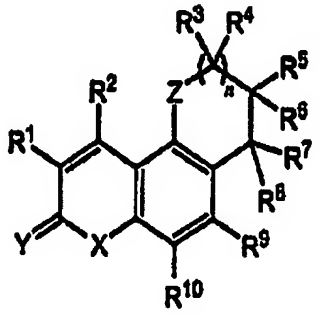
**IN THE CLAIMS:**
Please replace Claims 1, 4, 26, 28, 29, 30, 32, 33, 34, 42, 43, 50, 52, 53, and 60 with the following Claims:

1. A compound of the formula:



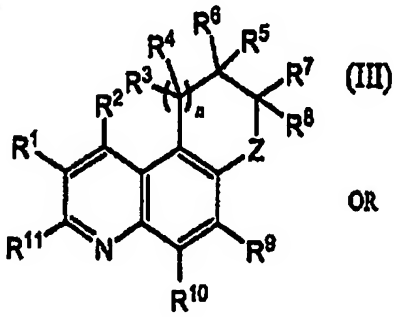

(I)

OR



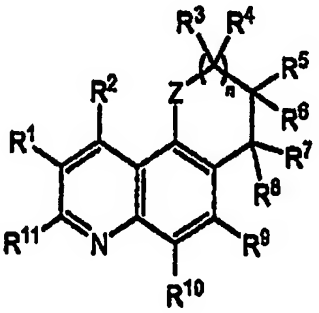

(II)

OR




(III)

OR




(IV)

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

wherein:

$R^1$ is selected from among hydrogen, F, Cl, Br, I, $NO_2$, $OR^{12}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}R^{12}$, substituted $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl and $C_1$-$C_8$ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

$R^2$ is selected from among F, Cl, Br, I, $CF_3$, $CHF_2$, $CH_2F$, $CF_2Cl$, CN, $CF_2OR^{12}$, $CH_2OR^{12}$, $OR^{12}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}R^{13}$, substituted $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkenyl and $C_2$-$C_8$ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

$R^3$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^4$ is selected from among hydrogen F, Cl, Br, I, $OR^{12}$, $NR^{12}R^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkynyl, $C_2$-$C_8$ alkenyl, aryl, heteroaryl and arylalkyl wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

$R^5$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^6$ is selected from among hydrogen F, Cl, Br, I, $OR^{12}$, $NR^{12}R^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkynyl, $C_2$-$C_8$ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

$R^7$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl, and heteroalkyl groups are optionally substituted;

$R^8$ is selected from among hydrogen F, Cl, Br, I, $OR^{12}$, $NR^{12}R^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkynyl, $C_2$-$C_8$ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

$R^3$ and $R^5$ taken together form a bond; or

$R^5$ and $R^7$ taken together form a bond; or

$R^4$ and $R^6$ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

$R^6$ and $R^8$ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

$R^9$ and $R^{10}$ each independently is selected from among hydrogen, F, Cl, Br, I, CN, $OR^{12}$, $NR^{12}R^{13}$, $C_m(R^{12})_{2m}OR^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}C(O)R^{13}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

$R^{11}$ is selected from F, Br, Cl, I, CN, $OR^{14}$, $NR^{14}R^{13}$, and $SR^{14}$;

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

$R^{12}$ and $R^{13}$ each independently is selected from the group of hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkenyl, $C_2$-$C_8$ alkynyl, heteroaryl and aryl wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

$R^{14}$ is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, aryl, heteroaryl, $C(O)R^{15}$, $CO_2R^{15}$ and $C(O)NR^{15}R^{16}$, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

$R^{15}$ and $R^{16}$ each independently is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, wherin the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N $\{R^{14}\}$;

Y is seleted from among O, S, N$\{R^{12}\}$ and NO$\{R^{12}\}$;

Z is N$\{R^{12}\}$;

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

4. A compound according to claim **1**, wherein $R^2$ is selected from among F, Cl, Br, $CF_3$, $CF_2Cl$, $CF_2H$, $CFH_2$, substituted $C_1$-$C_4$ alkyl, $C_1$-$C_4$ haloalkyl, $C_1$-$C_4$ heteroalkyl, $C_2$-$C_4$ alkenyl and $C_2$-$C_4$ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted.

26. A compound according to claim **1**, wherein:

$R^6$ and $R^8$ each indepentently is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl, $C_1$-$C_6$ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

$R^6$ and $R^8$ taken together form a three to eight membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

28. A compound according to claim **1**, wherein:

$R^1$ is selected from among hydrogen, F, Cl, Br, I, substituted $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

$R^2$ is selected from among F, Cl, Br, $CF_3$, $CF_2Cl$, $CF_2H$, $CFH_2$, substituted $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein haloalkyl and heteroalkyl groups are optionally substituted; and

$R^3$ and $R^4$ each independently is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

29. A compound according to claim **28**, wherein

$R^5$ through $R^8$ each independently is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

$R^6$ and $R^8$ taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

30. A compound according to claim **29**, wherein:

$R^9$ and $R^{10}$ each independently is selected from among hydrogen, F, Cl, Br, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^{12}$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl, $C_1$-$C_6$ heteroalkyl, $C_2$-$C_6$ alkenyl, $C_2$-$C_6$ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; and

$R^{14}$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, $C(O)R^{15}$, $CO_2R^{15}$ and $C(O)NR^{15}R^{16}$, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

32. A compound according to claim **1**, wherein said compound is selected from among:
6-Methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Isopropyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Allyl-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2 (1*H*)-one;
4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-furanylmethyl)-4-trifluoromethylcyclopentano [g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-thiophenemethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

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(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoro-ethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethylcyclo-pentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethy1)-4-trifluoromethy1-9*H*-cyclohexano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,9,9a(*cis*),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-trifluoromethylcycloheptano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-butyl-6-methy1-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-methyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo [3,2-*f*]-quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

UNITED STATES PATENT AND TRADEMARK OFFICE

# CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484 B2
APPLICATION NO. : 10/080926
DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.



It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2 (1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2 (1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-4trifluorometyl-7*H*-pyrrolo[3,2-*f*]quinolin-2 (1H)-one;
5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2 (1*H*)-one;
5,6,7,8-Tetrahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo [3,2-*f*]-quinolin-2(1*H*)-one;
8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[g]pyrrolo[3,2-*f*]quinolin-2 (1*H*)-one;
9-Trifluoroethyl-trifluoromethyl-9*H*-benzo[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Acetyloxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*] quinolin-2(1*H*)-one;
2-Acetyloxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinoline;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(+)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo [3,2-*f*]quinolin-2(1*H*)-one;
7-Allyl-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
6-Ethyl-7-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

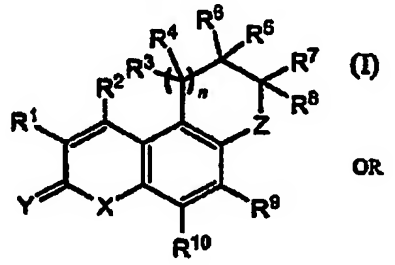
7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-cyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(–)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one; and
5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

33. A compound according to claim 1, wherein said compound is selected from the group consisting of:
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclo-pentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-trifluoromethylcyclo-pentanoo[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexan[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

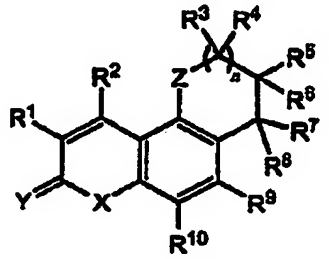
(±)-5,6-*cis*-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]-quinolin-2(1*H*)-one;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(–)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

34. A pharmaceutical composition, comprising:
a pharmaceutically acceptable carrier; and
a compound of formula:



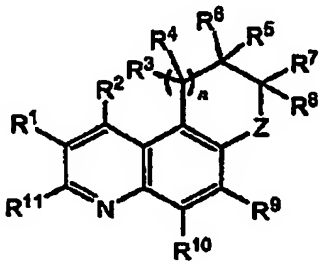

(I)

OR



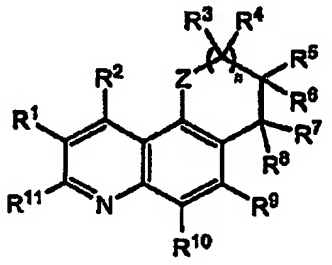

(II)

OR




(III)

OR




(IV)

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

wherein:

$R^1$ is selected from among hydrogen, F, Cl, Br, I, $NO_2$, $OR^{12}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}R^{13}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl and $C_1$-$C_8$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^2$ is selected from among F, Cl, Br, I, $CF_3$, $CHF_2$, $CH_2F$, $CF_2Cl$, CN, $CF_2OR^{12}$, $CH_2OR^{12}$, $OR^{12}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}R^{13}$, substituted $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkenyl and $C_2$-$C_8$ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

$R^3$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^4$ is selected from among hydrogen, F, Cl, Br, I, $OR^{12}$, $NR^{12}R^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkynyl, $C_2$-$C_8$ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

$R^5$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^6$ is selected from among hydrogen, F, Cl, Br, I, $OR^{12}$, $NR^{12}R^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkynyl, $C_2$-$C_8$ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

$R^7$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^8$ is selected from among hydrogen, F, Cl, Br, I, $OR^{12}$, $NR^{12}R^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkynyl, $C_2$-$C_8$ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

$R^3$ and $R^5$ taken together form a bond; or

$R^5$ and $R^7$ taken together form a bond; or

$R^4$ and $R^6$ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

$R^6$ and $R^8$ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

$R^9$ and $R^{10}$ each independently is selected from among hydrogen, F, Cl, Br, I, CN, $OR^{12}$, $NR^{12}R^{13}$, $C_m(R^{12})_{2m}OR^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}C(O)R^{13}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

$R^{11}$ is selected from among hydrogen, F, Br, Cl, I, CN, $OR^{14}$, $NR^{14}R^{13}$ and $SR^{14}$;

$R^{12}$ and $R^{13}$ each independently is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkenyl, $C_2$-$C_8$ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

$R^{14}$ is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, aryl, heteroaryl, $C(O)R^{15}$, $CO_2R^{15}$ and $C(O)NR^{15}R^{16}$, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

$R^{15}$ and $R^{16}$ each independently is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl and $C_1$-$C_8$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N $\{R^{14}\}$;

Y is seleted from among O, S, N$\{R^{12}\}$ and N$\{OR^{12}\}$;

Z is N$\{R^{12}\}$;

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

42. A pharmaceutical composition according to claim **34**, wherein $R^{11}$ is selected from among F, Cl, CN, $OR^{14}$, $NR^{14}R^{13}$ and $SR^{14}$.

43. A pharmaceutical composition according to claim **42**, wherein $R^{11}$ is selected from among F, Cl, $OR^{14}$, $SR^{14}$, $NR^{14}R^{13}$.

50. A pharmaceutical composition according to claim **49**, wherein:

$R^5$ through $R^8$ each independently is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

$R^6$ and $R^8$ taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

52. A pharmaceutical composition according to claim **51** wherein Y is O or S.

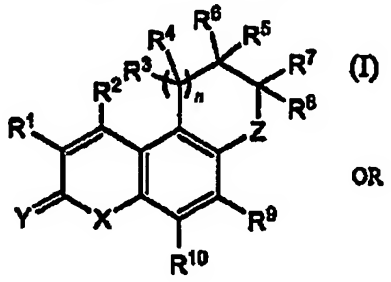
UNITED STATES PATENT AND TRADEMARK OFFICE
# CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484 B2
APPLICATION NO. : 10/080926
DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.



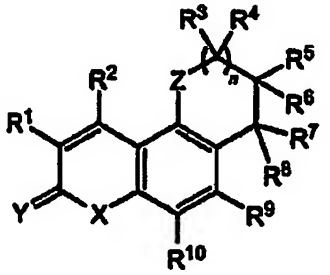
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

53. A compound of formula:




(I)

OR

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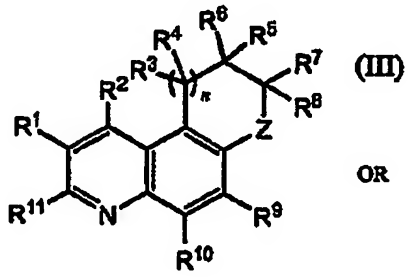
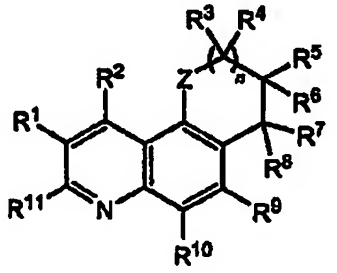



(III)

OR




(IV)

wherein:

$R^1$ is selected from among hydrogen, F, Cl, Br, I, $NO_2$, $OR^{12}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}R^{12}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl and $C_1$-$C_8$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^2$ is selected from among F, Cl, Br, $CF_3$, $CHF_2$, $CH_2F$, $CF_2Cl$, $CF_2OR^{12}$, $CH_2OR^{12}$, $OR^{12}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}R^{13}$, substituted $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the haloalkyl, and heteroalkyl groups are optionally substituted;

$R^3$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^4$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^5$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

$R^6$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl, $C_1$-$C_6$ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted;

$R^7$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

$R^8$ is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl, $C_1$-$C_6$ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

$R^3$ and $R^5$ taken together form a bond; or

$R^5$ and $R^7$ taken together form a bond; or

$R^4$ and $R^6$ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

$R^6$ and $R^8$ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

$R^9$ and $R^{10}$ each independently is selected from among hydrogen, F, Cl, Br, I, CN, $OR^{12}$, $NR^{12}R^{13}$, $C_m(R^{12})_{2m}OR^{13}$, $SR^{12}$, $SOR^{12}$, $SO_2R^{12}$, $NR^{12}C(O)R^{13}$, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

$R^{11}$ is selected from among F, Br, Cl, I CN, $OR^{14}$, $NR^{14}R^{13}$ and $SR^{14}$;

$R^{12}$ and $R^{13}$ each independently is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, $C_2$-$C_8$ alkenyl, $C_2$-$C_8$ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

$R^{14}$ is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl, $C_1$-$C_8$ heteroalkyl, aryl, heteroaryl, $C(O)R^{15}$, $CO_2R^{15}$ and $C(O)NR^{15}R^{16}$, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

$R^{15}$ and $R^{16}$ each independently is selected from among hydrogen, $C_1$-$C_8$ alkyl, $C_1$-$C_8$ haloalkyl and $C_1$-$C_8$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N $\{R^{14}\}$;

Y is seleted from among O, S, N$\{R^{12}\}$ and NO$\{R^{12}\}$;

Z is N$\{R^{12}\}$;

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

UNITED STATES PATENT AND TRADEMARK OFFICE

# CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484 B2
APPLICATION NO. : 10/080926
DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.



It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

60. A compound according to claim **34**, wherein:

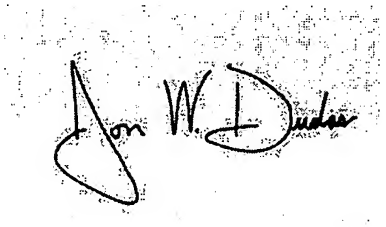
$R^5$ and $R^7$ each independently is selected from among hydrogen, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ haloalkyl and $C_1$-$C_6$ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

$R^5$ and $R^7$ taken together form a bond.

This certificate supersedes Certificate of Correction issued October 31, 2006.

Signed and Sealed this

Twenty-seventh Day of February, 2007



JON W. DUDAS
*Director of the United States Patent and Trademark Office*